

REMARKS

In reply to the Office Action dated February 18, 2004, reconsideration of the Examiner's rejections is respectfully requested in view of the above amendments and the following remarks. Claims 19-20, 22, and 61-65 are currently under examination in the Application. By the above amendment, claims 20 and 62 have been canceled and claims 19, 22, 61, 63 and 64 have been amended. The above amendment is not to be construed as acquiescence to the stated grounds for objection/rejection and is made without prejudice to prosecution of any subject matter modified and/or removed by this amendment in a related divisional, continuation and/or continuation-in-part application.

As requested by the Examiner, Applicants have updated the CROSS REFERENCE TO RELATED APPLICATIONS section. Applicants have also updated/amended the specification, at pages 138, 152 and 182, pursuant to the Examiner's request.

Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 64-65 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. According to the Examiner, claims 64 and 65 are indefinite for reciting an antigen presenting cell that expresses a polypeptide, wherein the polypeptide may be (a) SEQ ID NO: 113 or (c) sequences having at least 90% identity to SEQ ID NO: 113. According to the Examiner, it is unclear if the entire sequence of SEQ ID NO: 113 is used or only peptides of SEQ ID NO: 113.

Applicants respectfully traverse these rejections. As set forth above, claim 64 has been amended to be drawn to immunogenic compositions comprising an immunostimulant and an antigen-presenting cell that expresses a polypeptide, wherein the polypeptide comprises the T-cell epitope of amino acid residues 367-375 of SEQ ID NO: 113; and wherein the polypeptide stimulates a human cytotoxic T lymphocyte response specific for SEQ ID NO: 113. Reference to "90% identity" has been removed, without prejudice to continued prosecution. Applicants respectfully submit that the currently claimed invention is clearly drawn to an antigen presenting cell that expresses a polypeptide minimally containing the T-cell epitope of residues 367-375 of SEQ ID NO: 113, as it is precisely such a polypeptide which Applicants have disclosed and

claimed as containing an important human T-cell epitope sequence. Applicants further submit that it is well known in the art that upon expressing a polypeptide in an antigen presenting cell that the polypeptide becomes processed and presented on the surface of the antigen presenting cell. Thus, upon expression of a claimed polypeptide in an antigen presenting cell, it would be understood that the polypeptide would be processed and then presented as peptides on the surface of the antigen presenting cell. Accordingly, Applicants submit that the current claim language directed to an antigen presenting cells which expresses a claimed polypeptide of SEQ ID NO: 113 is clear and definite to a skilled artisan in both meaning and scope, and respectfully request reconsideration of the Examiner's rejection.

Priority

Applicants acknowledge the Examiner's assertions regarding priority. As the current claims now recite a limitation drawn specifically to residues "367-375 of SEQ ID NO: 113", and the disclosure of the epitope sequence corresponding to these residues was first made by Applicants in Application Serial No. 09/232,149, filed 1/15/99, now U.S. Patent No. 6,465,611, Applicants have amended the CROSS REFERENCE TO RELATED APPLICATIONS section such Serial No. 09/232,149 is the earliest application to which priority is now claimed.

Rejections Under 35 U.S.C. § 112, First Paragraph (Written Description)

Claims 19-20, 22 and 61-65 are rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that Applicants, at the time the application was filed, had possession of the claimed invention. More particularly, the Examiner states that the claims do not require that the polypeptide possess any particular biological activity, nor any particular conserved structure, or other distinguishing feature, and concludes on this basis that the claims are drawn to a genus of polypeptides that are defined only by length and/or sequence identity, which allegedly fails to satisfy the written description requirements of 35 U.S.C. § 112, first paragraph.

Applicants respectfully traverse this rejection. As set forth above, claim 62 has been canceled, without acquiescence or prejudice, and claim 61 has been amended to specify that the claimed polypeptide comprises the structure of a core T-cell epitope sequence identified by Applicants as corresponding to amino acid residues 367-375 of SEQ ID NO: 113. Furthermore, the claimed invention also has been amended such that the recited polypeptide is one that is capable of stimulating human cytotoxic T-cells specific for the prostate-specific antigen of SEQ ID NO: 113. Claims containing reference to "90% identity" have been canceled, without prejudice to continued prosecution.

Applicants respectfully submit that the currently claimed invention fully satisfies the written description requirement of 35 U.S.C. § 112, first paragraph. As noted by the Examiner, possession of an invention is more readily established and, correspondingly, greater claim breadth is generally permissible where an applicant discloses functional and/or descriptive information concerning the specie(s) in an application, *e.g.*, a distinguishing identifying characteristic common among the members of a claimed genus (see Guidelines for Examination of Patent Applications Under the 35 U.S.C. 112, ¶1, "Written Description Requirement – Federal Register: January 5, 2001 (Volume 66, No. 4, pp. 1099-1111)). For example, at the bottom of page 1-105, the Guidelines state that, "[a]n adequate written description of the invention may be shown by any description of sufficient, relevant, identifying characteristics so long as a person skilled in the art would recognize that the inventor had possession of the claimed invention." The written description requirement is thus satisfied where there is disclosure of relevant, identifying characteristics possessed by members of a genus in view of the species disclosed.

In the present case, structural identifying characteristics common to members of the claimed genus are indeed explicitly disclosed by the application and recited in the claimed invention, that is, the structure of SEQ ID NO: 113 as well as the core residues of the T-cell epitope contained within SEQ ID NO: 113 that was identified by Applicants in the subject application. In addition, although functional or enzymatic activity of a claimed polypeptide is commonly used to satisfy the written description requirement of a claimed polypeptides genus, other relevant, identifying characteristics may also serve this purpose. In the context of the present invention, the cellular activity of the polypeptide of SEQ ID NO: 113 is largely irrelevant

to whether a skilled artisan would recognize that Applicants were in possession of the claimed immunogenic compositions, as it is the T-cell immunogenicity of SEQ ID NO: 113, and the epitope sequences contributing to that immunogenicity, that is most important rather than the cellular function or activity of SEQ ID NO: 113. Relevant functional identifying characteristics common to all members of the claimed genus, *i.e.*, their ability to stimulate a human cytotoxic T-cell response specific for SEQ ID NO: 113, are thus specifically recited by the claims.

Thus, Applicants have disclosed and claimed both structural and functional identifying characteristics common to members of the claimed genus which have particular bearing and relevance when the nature and scope of the invention in Applicants' possession is considered by one of ordinary skill in the art. Given Applicants' identification of the T-cell immunogenicity of SEQ ID NO: 113, and given Applicants' further discovery that residues 367-375 of SEQ ID NO: 113 represent a naturally processed cytotoxic T-cell epitope sequence contained within SEQ ID NO: 113 effective for eliciting human prostate-specific T-cells, the skilled artisan would indeed regard Applicants as being in possession of the currently claimed immunogenic compositions at the time the application was filed.

Reconsideration and withdrawal of the Examiner's rejection is thus respectfully requested.

Rejections Under 35 U.S.C. § 112, First Paragraph (Enablement)

Claims 19-20, 22, 61 and 63-65 stand rejected under 35 U.S.C. § 112, first paragraph, as subject matter which was not described in the specification in such a way as to enable one of skill in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The Examiner acknowledges that the specification is enabling "for immunogenic compositions and methods for treating prostate cancer comprising an immunostimulant and the prostate-specific polypeptide of SEQ ID NO: 113 comprising the P1S#10 peptide (SEQ ID NO: 337)". The Examiner, however, asserts that the specification does not reasonably provide enablement for immunogenic compositions and methods using any 10 amino acid sequence of SEQ ID NO: 113, or any 10 amino acids of SEQ ID NO: 113 and having at least 90% identity to the entirety of SEQ ID NO: 113.

Applicants respectfully traverse this rejection. By the above amendment, claim 62 has been canceled and claim 61 has been amended such that a claimed polypeptide must comprise the T-cell epitope sequence of the P1S#10 peptide (SEQ ID NO: 337), corresponding to residues 367-375 of SEQ ID NO: 113. Accordingly, the claimed invention is drawn to subject matter specifically acknowledged by the Examiner as being adequately enabled by the specification. Reconsideration is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 19-20, 22 and 61-63 stand rejected as being obvious under 35 U.S.C. § 103 over Billing-Mendel (U.S. Patent No. 6,130,043), in view of Hauser (U.S. Patent No. 5,776,468) and Ladd (U.S. Patent No. 5,759,551).

Applicants respectfully traverse this rejection. As set forth in the above amendment, claim 62 has been canceled, without prejudice or acquiescence. As for claim 61, this claim has been amended to be directed to a composition comprising an immunostimulant and an isolated polypeptide comprising at least the T-cell epitope of amino acids 367-375 of SEQ ID NO: 113, wherein the immunostimulant induces a predominantly Th1-type response, and wherein the polypeptide stimulates a T-cell response specific for SEQ ID NO: 113. Applicants further note that the specification as filed discloses, for example at page 106, lines 1-6, that a Th1-type immunostimulant is selected in order to favor a cellular (T-cell) immune response as opposed to a humoral (antibody) immune response.

Billing-Mendel describes a polypeptide sharing identity with residues 299-529 of SEQ ID NO: 113. Billing-Mendel further describes antibodies specific for their disclosed sequence as well as methods for making such antibodies. Billing-Mendel does not, however, offer any teaching or suggestion whatsoever that their disclosed polypeptide may represent a human T-cell immunogen. Billing-Mendel further does not teach or suggest that residues 367-375 of SEQ ID NO: 113 represent a human T-cell epitope sequence.

Hauser teaches an adjuvant, small monophosphoryl lipid A, which preferentially induces a Type I response. Hauser *et al.* does not teach or suggest combining the disclosed

adjuvant with any polypeptide of SEQ ID NO: 113, much less a polypeptide comprising residues 367-375 of SEQ ID NO: 113.

Ladd *et al.* teaches immunogenic peptide compositions useful in the treatment of prostate cancer and that the peptides can be formulated with adjuvants including saponins. Ladd *et al.*, however, does not teach or suggest combining a disclosed adjuvant with any polypeptide of SEQ ID NO: 113, much less a polypeptide comprising residues 367-375 of SEQ ID NO: 113.

Therefore, the deficiencies of Billing-Mendel are not remedied by the disclosures of Hauser and/or Ladd, when not one of these references teaches or suggests that a polypeptide of SEQ ID NO: 113 represents a human T-cell immunogen, or that residues 367-375 of SEQ ID NO: 113 correspond to a human T-cell epitope. It could not have been obvious, absent prior knowledge of the T-cell immunogenicity and T-cell epitope of residues 367-375 of SEQ ID NO: 113, which did not exist prior to Applicants' disclosure, to combine a currently claimed polypeptide of SEQ ID NO: 113 with an immunostimulant which induces a predominantly Th1 type response. Rather, it is only in view of the instant disclosure that one skilled in the art could reasonably reach the conclusion that a polypeptide of the instant claims would be a polypeptide capable of stimulating a human T-cell response. As such, it is only in view of Applicants' disclosure that one skilled in the art would have found motivation for combining a claimed polypeptide with an immunostimulant which induces a predominantly Th1 type response.

As the cited combination of references fail to teach, suggest or otherwise demonstrate the T-cell immunogenicity of any polypeptide, much less identify the specific T-cell immunogenic portion claimed by Applicants and set forth in amino acids 367-375 of SEQ ID NO: 113, Applicants respectfully submit that the cited combination of references offers nothing of substance that would lead that the skilled artisan, with any reasonable expectation of success, to arrive at the currently claimed compositions. Applicants submit that any position to the contrary relies impermissibly on hindsight reconstruction of Applicants' claims. Reconsideration of this rejection is respectfully requested.

Claims 19-20, 22 and 61-63 stand rejected as being obvious under 35 U.S.C. § 103 over Xu *et al.* (U.S. Patent No. 6,261,562) as evidenced by the instant disclosure in view of Hauser (U.S. Patent No. 5,776,468) and Ladd (US Patent No. 5,759,551). Without acquiescing

to the basis for this rejection, Applicants submit herewith copies of fully executed Assignments for U.S. Patent No. 6,261,562 and for the instant application, establishing common ownership of the subject matter of U.S. Patent No. 6,261,562 and the currently claimed invention. Reconsideration of this rejection is respectfully requested.

Double Patenting Rejections

Claims 19-20 and 61-63 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of U.S. Patent No. 6,329,505 filed 11/12/99, in view of Hauser and Ladd.

Applicants respectfully traverse this rejection. As set forth above, the claimed invention now requires that a polypeptide of the claimed invention be selected so as to comprise residues 367-375 of SEQ ID NO: 113, corresponding to a specific T-cell epitope sequence identified by Applicants. As the issued claims of U.S. 6,329,505 make no reference to a polypeptide as specifically and currently claimed, that is, a polypeptide comprising residues 367-375 of SEQ ID NO: 113, the subject matter of the instant claims is not obvious over the issued claims of U.S. 6,329,505. Reconsideration is respectfully requested.

Claims 19-20, 22 and 61-63 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4-7 and 13 of U.S. Patent No. 6,261,562 filed 2/9/98, in view of Hauser and Ladd.

Applicants respectfully traverse this rejection. As set forth above, the claimed invention now requires that a polypeptide of the claimed invention be selected so as to comprise residues 367-375 of SEQ ID NO: 113, corresponding to a specific T-cell epitope sequence identified by Applicants. As the issued claims of U.S. 6,261,562 make no reference to a polypeptide as specifically and currently claimed, that is, a polypeptide comprising residues 367-375 of SEQ ID NO: 113, the subject matter of the instant claims is not obvious over the issued claims of U.S. 6,261,562. Reconsideration is respectfully requested.

Finally, the Examiner request that Applicants confirm common ownership of U.S. Patent No. 6,329,505 and the currently claimed invention in order to avoid a potential rejection under 35 U.S.C. § 103(a) based upon U.S. Patent No. 6,329,505 as potential prior art under 35

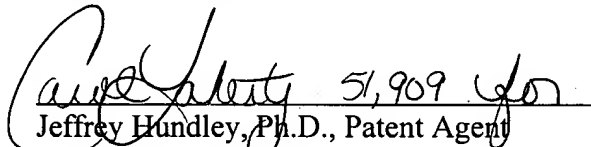
U.S.C. 102(f) or (g). Accordingly, Applicants submit herewith copies of fully executed Assignment documents for U.S. Patent No. 6,329,505 and the instant application, establishing common ownership of these applications at the time the invention the currently claimed invention was made.

The Commissioner is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now believed to be in condition for allowance. Favorable consideration is respectfully requested.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC


Jeffrey Hundley, Ph.D., Patent Agent
Registration No. 42,676

JEH:tt

Enclosure:

Postcard
Assignment Documents for Instant Application
Assignment Documents for Patent No. 6,261,562
Assignment Documents for Patent No. 6,329,505

701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092
Phone: (206) 622-4900
Fax: (206) 682-6031

464547_1.DOC

**ASSIGNMENT OF UTILITY PATENT APPLICATION**

WHEREAS, we,

Name	Post Office Address	
Jiangchun Xu	15805 SE 43 rd Place, Bellevue, WA 98006	;
Davin C. Dillon	18112 NW Montreux Drive, Issaquah, WA 98027	;
Jennifer L. Mitcham	16677 NE 88 th Street, Redmond, WA 98052	;
Susan L. Harlocker	7522 – 13 th Avenue W., Seattle, WA 98117	;
Yuqiu Jiang	5001 South 232 nd Street, Kent, WA 98032	;
Michael D. Kalos	8116 Dayton Ave. N., Seattle, WA 98103	;
Gary R. Fanger	15906 – 29 th Drive SE, Mill Creek, WA 98012	;
Marc W. Retter	33402 NE 43 rd Place, Carnation, WA 98014	;
John A. Stolk	7436 Northeast 144 th Place, Bothell, WA 98011	;
Craig H. Day	11501 Stone Ave. N., C122, Seattle, WA 98133-8317	;
Thomas S. Vedvick	124 South 300 th Place, Federal Way, WA 98003	;
Darrick Carter	321 Summit Avenue East, Seattle, WA 98102	;
Samuel X. Li	3608 175 th Cr. NE, Redmond, WA 98052	;
Aijun Wang	3106 213 th Place SE, Issaquah, WA 98029	;
Yasir A. W. Skeiky	15106 SE 47 th Place, Bellevue, WA 98006	;
William T. Hepler	12034 – 38 th Avenue NE, Seattle, WA 98125	; and
Robert A. Henderson	8904 – 192 nd Street SW, Edmonds, WA 98026	,

(hereinafter referred to as ASSIGNORS), having post office addresses as listed above next to our names, are the joint inventors of an invention entitled

**COMPOSITIONS AND METHODS FOR THE THERAPY
AND DIAGNOSIS OF PROSTATE CANCER**

which is described and claimed in the specification and claims of continuation-in-part (C-I-P) Patent Application No. 09/593,793, as filed in the United States Patent and Trademark Office on June 13, 2000 (“this application”) for which a patent is sought. This application derives benefit from the following application(s):

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number	Attorney Docket Number
09/570,737	5/12/00		210121.42714C14
09/568,100	05/09/00		210121.42713C13
09/536,857	03/27/00		210121.42712C12
09/483,672	01/14/00		210121.42711C11
09/443,686	11/18/99		210121.42710C10
09/439,313	11/12/99		210121.427C9
09/352,616	07/13/99		210121.427C8
09/288,946	04/09/99		210121.427C7
09/232,149	01/15/99		210121.427C6
09/159,812	09/23/98		210121.427C5
09/115,453	07/14/98		210121.427C4
09/030,607	02/25/98		210121.427C3
09/020,956	02/09/98		210121.427C2
08/904,804	08/01/97		210121.427C1
08/806,099	02/25/97		210121.427

WHEREAS, Corixa Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 1124 Columbia Street, Suite 200, Seattle, Washington 98104, is desirous of acquiring the entire right, title and interest in and to said invention, this application, and in and to any Letters Patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention, this application and any and all Letters Patent which may be granted therefor in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues

and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from this application and said parent application(s) to which said foreign applications are entitled by virtue of international convention, treaty or otherwise; said invention, this application and all Letters Patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made.

ASSIGNORS hereby authorize and request the Director of the Patent and Trademark Office to issue said United States Patent to ASSIGNEE, of the entire right, title and interest in and to the same, for its sole use and behalf, and for the use and behalf of its legal representatives, to the full end of the term for which said Patent may be granted, as fully and entirely as the same would have been held by us has this assignment and sale not been made.

ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign Patent on said invention, for litigation regarding said Patent, or for the purpose of protecting title to said invention or Patent therefor.

8/25/00
Date _____
Jiangchun Xu
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Jiangchun Xu is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.



Dated 08/25/00
Signature of _____
Notary Public Dennis J. Sisk
Printed Name DENNIS J. SISK
My appointment expires 04-30-03

9/7/00
Date
Davin C. Dillon
Davin C. Dillon
State of Washington
County of King) ss.

I certify that I know or have satisfactory evidence that Davin C. Dillon is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 7, 2000
Signature of Notary Public Deirdre L. Bryan
Printed Name **DEIRDRE L. BRYAN**
My appointment expires 9/1/02

8/25/00
Date
Jennifer L. Mitcham
Jennifer L. Mitcham
State of Washington
County of King) ss.

I certify that I know or have satisfactory evidence that Jennifer L. Mitcham is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.



Dated 08-25-00
Signature of Notary Public Dennis J. Sisk
Printed Name Dennis J Sisk
My appointment expires 04/30/03

Date Sept 12, 2000 Susan L. Harlocker
Susan L. Harlocker
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Susan L. Harlocker is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 12, 2000
Signature of Deirdre I. Bryan
Notary Public **DEIRDRE I. BRYAN**
Printed Name
My appointment expires 9/1/02

9/6/2000 [Signature]
Date Yuqiu Jiang
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Yuqiu Jiang is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 6, 2000
Signature of Deirdre I. Bryan
Notary Public **DEIRDRE I. BRYAN**
Printed Name
My appointment expires 9/1/02

Date

9/6/00

Michael D. Kalos

State of

Washington

County of

King

ss.

I certify that I know or have satisfactory evidence that Michael D. Kalos is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated

September 6, 2000

Signature of
Notary Public

Deirdre I. Bryan

Printed Name

DEIRDRE I. BRYAN

My appointment expires

9/1/02

Date

9/8/00

Gary R. Fanger

State of

Washington

County of

King

ss.

I certify that I know or have satisfactory evidence that Gary R. Fanger is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated

September 8, 2000

Signature of
Notary Public

Deirdre I. Bryan

Printed Name

DEIRDRE I. BRYAN

My appointment expires

9/1/02

Date Sept 6, 2000

Marc W. Retter
Marc W. Retter

State of Washington

County of King

SS.

I certify that I know or have satisfactory evidence that Marc W. Retter is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 6, 2000

Signature of Notary Public Deirdre I. Bryan

Printed Name **DEIRDRE I. BRYAN**

My appointment expires 9/1/02

Date 9/11/00

John A. Stolk
John A. Stolk

State of Washington

County of King

SS.

I certify that I know or have satisfactory evidence that John A. Stolk is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 11, 2000

Signature of Notary Public Deirdre I. Bryan

Printed Name **DEIRDRE I. BRYAN**

My appointment expires 9/1/02

Date 9/6/00 C. H. Day
Craig H. Day
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Craig H. Day is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 6, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

Date Sept 6, 2000 Thomas S. Vedvick
Thomas S. Vedvick
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Thomas S. Vedvick is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 6, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

9/08/00
Date

[Signature]
Darrick Carter

State of Washington)

County of King)

ss.

I certify that I know or have satisfactory evidence that Darrick Carter is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 8, 2000

Signature of Notary Public [Signature]

Printed Name **DEIRDRE I. BRYAN**

My appointment expires 9/1/02

9/12/00
Date

[Signature]
Samuel X. Li

State of Washington)

County of King)

ss.

I certify that I know or have satisfactory evidence that Samuel X. Li is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 12, 2000

Signature of Notary Public [Signature]

Printed Name **DEIRDRE I. BRYAN**

My appointment expires 9/1/02

Date 9/12/00 Aijun Wang
Aijun Wang
State of Washington
County of King) ss.

I certify that I know or have satisfactory evidence that Aijun Wang is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 12, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

Date 9/7/00 Yasir A. W. Skeiky
Yasir A. W. Skeiky
State of Washington
County of King) ss.

I certify that I know or have satisfactory evidence that Yasir A. W. Skeiky is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 7, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

Date 8/24/2000 William T. Hepler
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that William T. Hepler is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated August 24, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

Date 9/6/00 Robert A. Henderson
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Robert A. Henderson is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated September 6, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

ASSIGNMENT

WHEREAS, we, Jiangchun Xu and Davin C. Dillon (hereinafter referred to as ASSIGNORS), having post office addresses of 15805 Southeast 43rd Place, Bellevue, Washington 98006, and 21607 Northeast 24th Street, Redmond, Washington 98053, respectively, are the joint inventors of an invention entitled "COMPOUNDS FOR IMMUNOTHERAPY OF PROSTATE CANCER AND METHODS FOR THEIR USE," as described and claimed in the specification forming part of a continuation-in-part application for United States letters patent which was filed on February 9, 1998, and assigned Application No. 09/020,956, this application is a Continuation-in-Part of U.S. Application No. 08/904,804, filed August 1, 1997; which is a Continuation-in-Part of U.S. Application No. 08/806,099, filed February 25, 1997; which application is pending.

WHEREAS, Corixa Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 1124 Columbia Street, Suite 200, Seattle, Washington 98104, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE, the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns for their use and benefit and of their successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding said letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

March 10, 98
Date Jiangchun Xu
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Jiangchun Xu is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

Dated March 10, 1998
Signature of Notary Public Carrie D. Osterander
Printed Name Carrie D. Osterander
My appointment expires 12-4-99

3/10/98
Date Davin C. Dillon
State of Washington)
County of King) ss.

I certify that I know or have satisfactory evidence that Davin C. Dillon is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated March 10, 1998
Signature of Notary Public Carrie D. Osterander
Printed Name Carrie D. Osterander
My appointment expires 12-4-99

ASSIGNMENT

WHEREAS, we, Jiangchun Xu, Davin C. Dillon, Jennifer L. Mitcham, Susan L. Harlocker, Jiang Yuqiu, Steve G. Reed, Michael D. Kalos, Gary R. Fanger, Marc W. Retter, John A. Stolk and Craig H. Day (hereinafter referred to as ASSIGNORS), having post office addresses of 15805 Southeast 43rd Place, Bellevue, WA 98006, 21607 Northeast 24th Street, Redmond, WA 98053, 16677 Northeast 88th Street, Redmond, WA 98052, 6203 20th Avenue Northwest, Seattle, WA 98107, 5001 South 232nd Street, Kent, WA 98032, 2843 – 122nd Place NE, Bellevue, WA 98005, 8116 Dayton Ave. N, Seattle, WA 98103, 15906 – 29th Drive SE, Mill Creek, WA 98012, 1290 140th Pl. NE, Bellevue, WA 98007, 7436 NE 144th Place, Bothell, WA 98011, and 11501 Stone Ave. N., Apt. C122, Seattle, WA 98032, respectively, are the joint inventors of an invention entitled "COMPOSITIONS AND METHODS FOR THERAPY AND DIAGNOSIS OF PROSTATE CANCER," as described and claimed in the specification for which an application for United States letters patent was filed on November 12, 1999 and assigned Application No. 09/439,313.

WHEREAS, Corixa Corporation (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 1124 Columbia Street, Suite 200,k Seattle, Washington 98104, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

2/14/00
Date
State of Washington
County of King

Jiangchun Xu
Jiangchun Xu

ss.

I certify that I know or have satisfactory evidence that Jiangchun Xu is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 2/1/02

2/14/00
Date
State of King
County of Washington

Davin C. Dillon
Davin C. Dillon

ss.

I certify that I know or have satisfactory evidence that Davin C. Dillon is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 2/1/02

2/14/00
Date
State of Washington)
County of King)

Jennifer L. Mitcham
Jennifer L. Mitcham

ss.

I certify that I know or have satisfactory evidence that Jennifer L. Mitcham is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

2/14/00
Date
State of Washington)
County of King)


Susan L. Harlocker
Susan L. Harlocker

ss.

I certify that I know or have satisfactory evidence that Susan L. Harlocker is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02

2/22/2000
Date


Jiang Yuqiu

State of Washington)

County of King)

ss.

I certify that I know or have satisfactory evidence that Jiang Yuqiu is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 22, 2000

Signature of Notary Public Deirdre I. Bryan

Printed Name DEIRDRE I. BRYAN

My appointment expires 9/1/02

2/29/00
Date


Steve G. Reed

State of Washington)

County of King)

ss.

I certify that I know or have satisfactory evidence that Steve G. Reed is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.


Dated February 29, 2000

Signature of Notary Public Deirdre I. Bryan

Printed Name DEIRDRE I. BRYAN

My appointment expires 9/1/02

2.14.00
Date
State of Washington)
County of King)



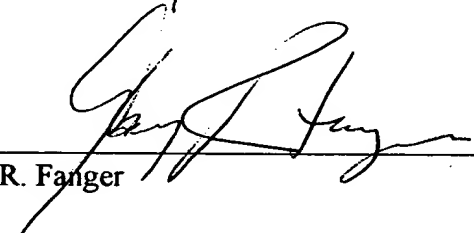
Michael D. Kalos

ss.

I certify that I know or have satisfactory evidence that Michael D. Kalos is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name DEIRDRE I. BRYAN
My appointment expires 9/1/02

2/15/00
Date
State of Washington)
County of King)



Gary R. Fanger

ss.

I certify that I know or have satisfactory evidence that Gary R. Fanger is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 15, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name DEIRDRE I. BRYAN
My appointment expires 9/1/02

2/14/00
Date
State of Washington
County of King

Marc W. Retter
Marc W. Retter

ss.

I certify that I know or have satisfactory evidence that Marc W. Retter is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name DEIRDRE I. BRYAN
My appointment expires 9/1/02

2/16/2000
Date
State of Washington
County of King

John A. Stolk
John A. Stolk

ss.

I certify that I know or have satisfactory evidence that John A. Stolk is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 16, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name DEIRDRE I. BRYAN
My appointment expires 9/1/02

02/14/2000
Date
State of Washington
County of King

Craig H. Day
Craig H. Day

SS.

I certify that I know or have satisfactory evidence that Craig H. Day is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated February 14, 2000
Signature of Notary Public Deirdre I. Bryan
Printed Name **DEIRDRE I. BRYAN**
My appointment expires 9/1/02